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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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12/30/2003

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EXAMINER

JAROENCHONWANIT, BUNJOB

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/607,584

Applicant(s)

WILFORD ET AL.

Examiner

Bunjoo Jaroenchonwanit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/07/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. In response to amendment and argument filed 10/07/03, the amendment has been entered. Claims 1-29 are pending for examination. The arguments have been considered but are moot in view of the new ground(s) of rejection.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 3-4, 7-10, 13-16, 21-24 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 3, 9, 15 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, elements and structural cooperative relationship, such omission amounting to a gap between the steps. See MPEP §2172.01. The omitted steps are: step, which defining the purpose of sending an interrupt signal; the element that the interrupt signal is being sent thereto and the relationship of the interrupt sender and receiver.
5. Claims 4, 10, 16 and 24 recite the limitation "corresponding interrupt signals" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. In addition, the limitation "corresponding interrupt signals" renders claims indefinite, because it is unclear whether applicant referring to the same interrupt signal previously cited in their parent claims and the correlation of a singular interrupt signal and a plurality of interrupt signals is unclear. For examination purpose, Examiner read "corresponding interrupt signals" as "corresponding to the interrupt signal".

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6. Claims 7, 13, 21, recite three “a count value”, it is not clear whether how many count value is used form threshold comparison. If the claim’s language referred to three different values, then it should be preceded with some kind of ordering number such as “first”, “second” and “third”.

7. Claim 27 recite two “a count value” and one “the count value”, it is not clear which “a count value” that “the count value” is referring thereto.

8. Claims 7, 13, 21, 27 recite “the switch” there is insufficient antecedent base in the claims.

9. Claims 8, 14 and 22, recite “percentage of a maximum count value”, renders the claim indefinite, because a specific range for which the percentage should lie in is not provided, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

10. To avoid delaying the prosecution, those unclear languages, which might have overlooked by the examiner, should also be amended. Appropriate correction is required in response to this Office Action.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-4, 7-10, 13-16, 19, 21-24 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Cielsak et al (US. 5,402,416).

13. Regarding claims 1, 2, 7, 8, 13, 14, 21, 22 and 27 Cielsak discloses a network interface comprising:

a memory to store statistics for a connection; a counter, to count statistic stored in the memory (counting switch stabilizing message, Col. 9, lines 29-53);

a processor to determine if a count value of connections is above a threshold (block 120, Fig. 9) and to collect the statistics for the connections of the switch stored in the memory derived from counters having a counter value above the threshold (block 122 fig 9) before collecting statistics in the memory derived from counters having a count value below the threshold (block 126, Fig.9; Col. 13, lines 15-39).

14. As to claims 27, the claim in context is analogous to the aforementioned above, hence, those analogous limitations are rejected by the rationale set forth above. Additionally, the claim included CPU having internal CPU counter, such limitations are inherent, since all CPU's have inherent internal counter as well as computing devices have inherent processor, i.e., CPU, for their operation.

15. Referring to claims 3, 9, 15 and 23, Cielsak discloses sending an interrupt signal when having a determined count value above the threshold (the stable state triggering signal, Col. 13, lines 22-30).

16. Referring to claims 4, 10, 16 and 24, Cielsak discloses collecting statistics from counters with corresponding interrupt signals before other counters with no corresponding interrupt signals (an interrupt signal is generated from switch in response to a count value > threshold, before proceed to determine whether the count value is less than threshold, inherently, information, e.g., statistic, must be collected from before the one with less value, Col. 13, lines 22-30).

17. Regarding claim 19, Cielsak discloses its switch has multiple ports (Fig. 2).

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18. Claims 5-6, 11-12, 17-18, 20, 25-26, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cielsak as applied to their parent claims.

19. Regarding claims 5, 6, 11, 12, 17, 18, 25 and 26, Cielsak discloses the invention substantially, as claimed, as described in their base claims, including enter stable state, which include logical; identifier in buffer, table (Fig. 9, message includes identification, Col. 8, lines 15-17; Col. 9, lines 49-52; Col. Table 1 Col. 10). Despite the fact that Cielsak is silent to the buffer used for storing connection identification is a FIFO type. However, it teaches the FIFO is used in the network for queuing purpose (Col. 3, lines 20-34). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to used the FIFO for storing connection Identification, with the motivation of Queuing stable ports for selectively connections.

20. Regarding claim 20, Cielsak discloses the invention substantially as claimed, as described in claim 19, but fails to include using OC ports, STS ports and SDH ports. Official Notice (see MPEP ' 2144.03 Reliance on "Well Known" Prior Art) is taken that OC ports, STS ports and SDH ports were well known in the art and have been used for forwarding and receiving data in network devices. Thus, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to expand Cielsak design concept to cover other types of network port, including OC ports, STS ports and SDH ports, with the motivation of increasing flexibility and applicability and competitiveness of the system.

21. Regarding claim 28, Cielsak discloses the invention substantially, as claimed, as described, including in claim 27, but fails to explicitly state that the CPU counters are wider than the module counters. It is inherent that a CPU has a fixed size for its internal counters, which

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depends only on the type of processor available in the market at a specific time of purchase. To choose a module (external) counter of smaller size would be intuitive in this type of operation because it would minimize CPU read cycle. Obtaining information from smaller external counters would require less machine cycle than obtaining information from external counters larger than CPU internal counters. It would have been obvious to one of ordinary skill in the art, at the time of the applicant's invention that choosing a smaller size for the module (external) counters would have been a matter of design choice, in order to expedite processing time.

22. Claim 29 is rejected based on the same analysis for claim 28. The CPU's internal counter size of 64-bits is an inherent characteristic of the CPU. Setting the module counter size to 32-bits would be intuitive because it would reduce the time necessary to transfer data to the CPU. It would have been obvious to one of ordinary skill in the art, at the time of the applicant's invention that choosing a size of 32-bits for the module (external) counters would have been a matter of design choice, in order to expedite processing time.

23. Examiner noted that applicant objective of the invention is to avoid polling data from network devices, port, of interface cards, by using interrupt signal to indicate the network card to be collected data, using interrupt signal would allow the system to collect information from high priority devices or the devices that have count value greater than or equal to a predetermined threshold value. However, claims' breath is too broad and read on several applications (see pertinent prior art cited in PTO-892). The Examiner suggested that the claims should be written to reflect the steps in fig. 4a and 4b, in order to advance prosecution.


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24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bunjob Jaroenchonwanit whose telephone number is (703) 305-9673. The examiner can normally be reached on 8:00-17:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (703) 308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.

/bj.  
December 19, 2003



BUNJOB JAROENCHONWANIT  
PRIMARY EXAMINER